

ART 34 AMDT

8

CLAIMS

1. A sensor for detecting food spoilage products within food packaging or the opening or compromise of packaging, comprising a metal co-ordinated complex immobilised in or on a substrate, which complex is capable of releasing a detectable component by the preferential binding of a gaseous substance to the metal of said complex.
2. A sensor according to claim 1, wherein the gaseous substance is a sulphur- and/or nitrogen- and/or alcohol- and/or carbonyl- and/or phosphorus-containing compound.
3. A sensor according to claim 1 or 2, wherein the metal complex is a metal complexed with a chromophore or fluorophore.
4. A sensor according to claim 1, 2 or 3, wherein the metal complex is immobilised in a film or incorporated into or into part of a packaging material.
5. A sensor according to claim 4, wherein said film is applied to a label retained inside packaging or to the interior surface of a portion of a package.
6. A sensor according to any one of the preceding claims, wherein the metal complex is a palladium-fluorophore complex.
7. A sensor according to claim 6, wherein the complex is palladium-Fluorexon.
8. A sensor substantially as hereinbefore described.
9. A method of detecting the degradation of the contents of food packaging, or the opening or compromise of a package, comprising inserting into or applying to said package or incorporating into a portion of the interior surface of said package, a metal co-ordinated complex which is capable of releasing a detectable component by preferential binding of a gaseous substance to the metal atom(s) of said complex.

Calcium blue
Calcein

10. A method according to claim 9, wherein food spoilage is detected by the release of a fluorophore or a chromophore from a metal complex.

09763981.052.301
T062007959760